

PART I Authorization to Operate

- A. The permittee is authorized to operate eight (8) Class V Injection Wells described in the permit application and in the cover page of this permit in accordance with the provisions set forth in this permit.
- B. This permit and the authorization to inject shall remain in effect until the expiration date as stated on the cover page of this permit. If the permittee desires to continue injection past the expiration date of this permit, the permittee shall request a permit reissuance at least 180 days prior to expiration of this permit.

PART II Injection Well Requirements

- A. The authorized injection wells are defined as the eight improved sinkholes used as retention basins to control stormwater discharges throughout the City and which are identified in the permit application dated December 16, 2016. The injection wells are: Nathan Estates Pond, Union Square Pond, Airport Pond, Shoals City Pond, Broadway Pond, Buena Vista Pond, Brown Street Pond, and 6th Street Pond.
- B. Only stormwater runoff described in the original permit application shall be injected. Injection of sewage, industrial waste, or other waste(s) is prohibited.

PART III Operating and Monitoring Requirements

- A. Injection Fluid
 1. The permittee shall not inject any substance that is defined as hazardous or toxic by Federal or State laws or regulations or any substance not identified in the application for this permit.
 2. The permittee shall monitor the stormwater prior to entering the injection wells as specified in Appendix A of this permit.
 3. ADEM may change the sampling requirements if the sampling data indicates a need to do so.
- B. Groundwater Monitoring Requirements

Should any discharge result in a threat of groundwater contamination, ADEM may require groundwater monitoring to properly assess the extent of contamination. ADEM may require that the permittee undertake measures to abate any such discharge or contamination.

C. Test Procedures

Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 of the Federal Register and guidelines published pursuant to Section 304(h) of the Federal Water Pollution Control Act (FWPCA). If more than one method of analysis of a substance is approved for use, a method having a detection limit lower than the permit limit shall be used. If the detection limit of all methods is higher than the permit limit, the method having the lowest detection limit shall be used and a report of less than detection limit shall constitute compliance. However, should the Environmental Protection Agency (EPA) approve a method with a lower detection limit during the term of this permit the permittee shall use the newly approved method.

D. Operation

1. The permittee shall adopt the following best management practices:

- a) Properly operate and maintain in good working order all treatment or control facilities or systems (and related appurtenances) installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the terms and conditions of this permit.
- b) Comply with Federal, State, and local solid and liquid waste disposal regulations.
- c) Solids or any other pollutant or other waste removed from stormwater retention basins shall be managed in a manner that complies with all applicable ADEM rules and regulations.

2. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. At a minimum, flow measurement devices shall be calibrated at least once every 12 months.

PART IV Records, Reports, & Submittals

A. Records

1. The permittee shall record the information listed below for all monitoring activities:
 - a) The date, exact place, and time of sampling or sampling measurement(s);
 - b) The name of individual(s) who perform the sampling or measurement(s);
 - c) The date(s) analyses were performed;
 - d) The name of the individual(s) who performed the analyses;
 - e) The analytical or technical methods used;
 - f) The results of each analysis performed; and
 - g) The completed chain-of-custody forms for all samples collected.
2. The permittee shall retain all records concerning the data used to complete the permit application, the operation of the wells, and the nature and composition of pollutants injected; to include records of the calibration of instruments, meters and gauges, quality control records, and recordings from continuous monitoring instrumentation for the previous three years of operation.
3. When requested by ADEM, the permittee shall deliver copies of any of the records maintained in accordance with this permit.

B. Reports

1. The reporting period for all monitoring performed under Appendix A shall be annually. Upon the effective date of this permit, the permittee shall submit reports not later than 28 days after each reporting period. The monitoring reports shall include:
 - a) The date, exact place, and time of sampling or sampling measurement(s);
 - b) The results of each analysis and measurement performed.
2. The permittee shall report to ADEM any of the following:
 - a) Any planned action which will change the use of the injection wells, will result in injection of a fluid different from that authorized by this permit, will change the method of operations of the injection well, or will change the method of the monitoring of well operations or injected fluids.
 - b) Any planned transfer of ownership or responsibility of operation of all or part of the permitted facilities.
 - c) Any relevant facts of which the permittee becomes aware which should have been submitted in a permit application and any corrections to data previously submitted in a permit application.

- d) The Permittee shall report to the Department, the county health department, and any other affected entity such as public water systems, immediately of becoming aware of any spill or discharge of any chemical, waste, or harmful substance or other unpermitted discharge to the stormwater injection well system. A written report shall be submitted no later than five (5) days after becoming aware of the occurrence of such discharge to and shall include the following information:
 - (i) A description of the discharge;
 - (ii) The period over which the discharge occurred, including exact dates and times or, if not corrected, the anticipated time the discharge is expected to continue; and
 - (iii) A description of the steps taken and/or being taken to reduce or eliminate the discharge and to prevent its recurrence.
3. Studies, engineering reports, plans and specifications, plugging and abandonment plans, logging reports, and other technical documents submitted to comply with this permit shall be prepared by or under the supervision of qualified persons defined by the Underground Injection Control (UIC) Regulations of ADEM.
4. **If the Permittee is not already participating in the Department's web-based electronic environmental (E2) DMR reporting system, the Permittee must enroll and participate within 180 days of the effective date of this permit.** Once the permittee is enrolled in the E2 DMR system, the permittee must utilize the system for the submittal of DMRs. The Permittee Participation Package may be downloaded online at <https://e2.adem.alabama.gov/npdes>. If the E2 DMR system is down due to technical problems originating with the Department's system, the permittee is not relieved of the obligation to submit DMR data by the required submittal date via faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date.

PART V Spill Prevention, Control, and Management

The Permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 CFR Part 112 for potential spills which could enter the injection well system. The Permittee shall implement appropriate structural and/or non-structural spill prevention, control, and/or management to address any spills of pollutants potentially entering the injection well system. The Permittee shall maintain onsite or have readily available sufficient oil & grease absorbing material and flotation booms to contain and clean-up fuel or chemical spills and leaks. Soil contaminated by chemical spills, oil spills, etc. must be immediately cleaned up, remediated, or be removed and disposed of in a Department approved manner. The permittee shall promptly take all reasonable steps to mitigate and minimize or prevent any adverse impact on human health or the environment resulting from noncompliance with any discharge limitation of this permit, including such accelerated or additional monitoring of the stormwater discharge and/or the receiving injection well as necessary to determine the nature and impact of the noncomplying discharge.

PART VI Plugging and Abandonment

The permittee shall perform any abandonment and closure actions that may be required by ADEM to remove a threat to groundwater quality or to the health of persons.

PART VII Permit Modification, Revocation, Suspension, and Termination

- A. ADEM may impose emergency additional conditions to this permit when necessary to protect waters of the state from pollution. These conditions may include suspension of the permit to inject. Any such condition shall remain in effect until the permit is modified, revoked, suspended or terminated in accordance with the UIC Regulations of ADEM.
- B. Non-emergency permit modification, revocation, suspension, and termination actions shall be accomplished in accordance with ADEM Administrative Rule 335-6-8.

PART VIII General Provisions

- A. The permittee shall comply with all provisions of the UIC Regulations of ADEM and shall comply with all provisions of this permit and shall reduce or halt injection if needed to maintain compliance with the permit and regulations.
- B. The permittee shall comply with all applicable Federal and State hazardous waste management regulations.
- C. The permittee shall allow members of the ADEM staff to:
 - 1. Access property and records of the permittee for purposes of inspection.
 - 2. Collect samples of the injected fluids, process and wastewater streams associated with the permitted injection wells.
 - 3. Collect samples from the injection wells or monitoring wells.
 - 4. Obtain copies of records upon request.
- D. The permittee shall immediately take all reasonable steps to minimize or correct any adverse environmental impact resulting from the operation of the permitted injection wells.
- E. This permit does not convey any property rights of any sort, or any exclusive privilege.
- F. The filing of a request by the permittee for a permit modification, revocation, and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- G. Any noncompliance with this permit constitutes a violation of the Alabama Water Pollution Control Act (AWPCA) and/or the UIC regulations and is grounds for enforcement action such as permit termination, revocation, modification; or denial of a permit renewal application.
- H. All provisions of ADEM Admin. Code Rule 335-6-8-.12 are incorporated as terms and conditions of this permit by reference.
- I. Injection to waters of the state, which in this case is groundwater, in accordance with this permit shall not result in the exceedance of a Maximum Contaminant Level (MCL) in groundwater as established by the Environmental Protection Agency. Injection to groundwater, in accordance with this permit shall not result in a violation of a surface water quality standard.

APPENDIX A

Stormwater entering each of the eight improved sinkhole stormwater retention basins shall be monitored by the permittee as specified below:

<u>STORMWATER INFLUENT</u> <u>CHARACTERISTICS</u>	<u>UNITS</u>	<u>STORMWATER</u> <u>LIMITS</u>	<u>MONITORING REQUIREMENTS</u>	
			FREQUENCY	SAMPLE TYPE
Total Lead	ug/l	15	Annually	Grab
Total Chromium	ug/l	100	Annually	Grab
Total Aluminum	ug/l	Monitor	Annually	Grab
Benzene	ug/l	5	Annually	Grab
Carbon Tetrachloride	ug/l	5	Annually	Grab
1, 2 -Dichloroethane	ug/l	5	Annually	Grab
Trichloroethylene	ug/l	5	Annually	Grab
1, 4- Dichlorobenzene	ug/l	75	Annually	Grab
1, 1 -Dichloroethylene	ug/l	7	Annually	Grab
1, 1, 1- Trichloroethane	ug/l	200	Annually	Grab
Vinyl chloride	ug/l	2	Annually	Grab
cis-1,2-Dichloroethylene	ug/l	70	Annually	Grab
1, 2-Dichloropropane	ug/l	5	Annually	Grab
Ethylbenzene	ug/l	700	Annually	Grab
Chlorobenzene	ug/l	100	Annually	Grab
1,2 -Dichlorobenzene	ug/l	600	Annually	Grab
Styrene	ug/l	100	Annually	Grab
Tetrachloroethylene	ug/l	5	Annually	Grab
Toluene	ug/l	1,000	Annually	Grab
1, 4-Dichloroethylene	ug/l	100	Annually	Grab
Xylene (Total)	ug/l	10,000	Annually	Grab
Dichloromethane	ug/l	5	Annually	Grab
1, 2, 4-Trichlorobenzene	ug/l	70	Annually	Grab
1, 1, 2-Trichloroethane	ug/l	5	Annually	Grab

ADEM Permit Rationale

Date: November 2, 2021

Prepared by: Jessica Spence

Permit Applicant: City of Muscle Shoals
c/o Mike Lockhart, Mayor
PO Box 2624
Muscle Shoals, AL 35662

Facility Name: City of Muscle Shoals Citywide Stormwater Retention Basins

Location: Citywide, Muscle Shoals, Colbert County, Alabama
Approximate Latitude N 34° 43' 10.8" / Longitude W -87° 37' 30.7"

UIC Permit Number ALSI9917008

Draft Permit is: Reissuance due to expiration

Injection Description: injection of stormwater runoff into eight improved sinkholes used to control stormwater discharges throughout the City

Discussion: Standard permit drafted.

1. No hazardous injection
2. Stormwater sampling required
3. Discharge must be sampled in accordance with Appendix A
4. Results must be submitted in a timely manner
5. Spill Prevention, Control and Countermeasures required